EMC
TEST REPORT

Report No.: **TS13080027-EME**
Model No.: **RVTT-10711 Titanium TXF3.0**
RVTT-10411 Titanium TX2.0
Issued Date: **Oct. 24, 2013**

Applicant:	**Tung Keng Enterprise Co., Ltd** **No. 1, Lane 160, Sec. 2, Tan-Fu Road, Tan-Tzu Dist.,** **Taichung, Taiwan**
Test Method/ Standard:	**EN 55014-1: 2006+A1: 2009+A2: 2011** **EN 61000-3-2: 2006+A1: 2009 +A2: 2009** **EN 61000-3-3: 2008** **EN 55014-2: 1997+A1: 2001+A2: 2008**
Test By:	**Intertek Testing Services Taiwan Ltd.,** **Hsinchu Laboratory** **No. 11, Lane 275, Ko-Nan 1 Street, Chia-Tung Li,** **Shiang-Shan District, Hsinchu City, Taiwan**

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1. General Information

1.1 Identification of the EUT

Product:	Elliptical
Model No.:	RVTT-10711 Titanium TXF3.0, RVTT-10411 Titanium TX2.0
Rated Power:	DC 30 V from adapter
Power Cord:	2C × 0.75mm^2 × 0.5 meter unshielded cable
Sample receiving date:	Aug. 05, 2013
Sample condition:	Workable
Testing date:	Aug. 13, 2013 ~ Oct. 21, 2013

Note 1: This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Note 2: The test report only allows to be revised within three years from its original issued date unless further standard or the requirement was noticed.

Note 3: When determining the test conclusion, the Measurement Uncertainty of test has been considered.

1.2 Adapter information

The EUT will be supplied with a power supply from below list:

No.	Brand	Model no.	Specification
Adapter	Fuyuang	FY3002500	I/P: 100-240VAC, 50/60Hz, 200VA O/P: 30VDC, 2.5A

1.3 Additional information about the EUT

The customer confirmed Model RVTT-10711 Titanium TXF3.0 and RVTT-10411 Titanium TX2.0 are different in the appearance.

For more detail features, please refer to user's Manual.

2. Test Summary

Emission			
Standard	**Test Type**	**Result**	**Remarks**
EN 55014-1: 2006 +A1:2009+A2: 2011	Conducted Test	PASS	Meet the requirements
	Discontinuous disturbance voltage	PASS	Meet the requirements
	Radiated Emission	PASS	Meet the requirements
EN 61000-3-2: 2006 +A1: 2009 +A2: 2009	Harmonic current emissions	N/A	N/A
EN 61000-3-3: 2008	Voltage fluctuation & flicker	PASS	Meet the requirements

Immunity (EN 55014-2: 1997+A1: 2001+A2:2008)				
Standard	**Test Type**	**Performance Criteria**	**Result**	
IEC 61000-4-2: 2008	ESD	Criterion B	PASS	Meets the requirements of Performance Criterion B
IEC 61000-4-3: 2010	RS	Criterion A	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-4: 2011	EFT	Criterion B	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-5:2008	Surge	Criterion B	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-6: 2008	CS	Criterion A	PASS	Meets the requirements of Performance Criterion A
IEC 61000-4-11: 2004	Dip	1. Interruptions reduction- Performance Criterion C 2. 30% reduction- Performance Criterion C 3. 60% reduction- Performance Criterion C	PASS	Meets the requirements of Voltage Dips: 1. Interruptions reduction- Performance Criterion A 2. 30% reduction- Performance Criterion A 3. 60% reduction- Performance Criterion A

Remark: The EUT is category IV product.

3. Test Specifications

3.1 Standards

EN 55014-1: 2006+A1:2009+A2: 2011 Electromagnetic compatibility — Requirements for household appliances, electric tools and similar apparatus— Part 1: Emission — Product family standard

EN 61000-3-2: 2006+A1: 2009 +A2: 2009 Electromagnetic compatibility ─ Part 3. Limits. Section 2. Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)

EN 61000-3-3: 2008 Electromagnetic compatibility — Part 3. Limits
Section 3. Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤ 16 A

EN55014-2: 1997+A1: 2001+A2:2008 Electromagnetic compatibility — requirements for household appliances, electric tools and similar apparatus —Part 2: Immunity — Product family standard

3.2 Test Facility accreditation

Intertek Testing Services Taiwan Ltd., Hsinchu Laboratory is accredited in respect of laboratory and the accreditation criterion is ISO/IEC 17025: 2005.

Certification	Bureau	Code	Accreditation Criteria
Accreditation Certificate	**TAF**	**0597**	**ISO/IEC 17025**
	BSMI	**SL2-IS-E-0024 SL2-IN-E-0024 SL2-A1-E-0024 SL2-R2-E-0024 SL2-R1-E-0024 SL2-L1-E-0024**	**ISO/IEC 17025**
Site Filling Code :	**FCC**	**93910**	**Test facility list & NSA Data**
	IC	**2042D-1, 2042D-2**	**Test facility list & NSA Data**
	VCCI	**R-1534 C-1618 T-1586 G-49**	**Test facility list & NSA Data**

Note 1: Each certificate can be refer to attachment certification.pdf.
Note 2: Each certificate are within the valid calibration period.

3.3 Performance criteria

A functional description and a definition of performance criteria, during or as a consequence of the EMC testing, shall be provided by the manufacturer and noted in the test report, based on the following criteria.

Criterion A:
The apparatus shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.

Criterion B:
The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however, no change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.

Criterion C:
Temporary loss of function is allowed, provided the function is self- recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.

3.4 Mode of operation during the test

EUT connects to adapter by AC source (90~264Vac, 50/60Hz) via to AMN system.
Press the start button on console, and tread elliptical until test is finished. During the test, we keep RPM higher than 40.

All test modes were verified and shown the final test data in report as below table.

For model: RVTT-10411 Titanium TX2.0

Test Items		Test Mode	Test Voltage
Emission	Conducted Emission	RPM Function Work	264Vac, 50Hz
	Discontinuous disturbance voltage		264Vac, 50Hz
	Radiated Emission		230Vac, 50Hz
	Flicker		230Vac, 50Hz
Immunity			230Vac, 50Hz

For model: RVTT-10711 Titanium TX3.0

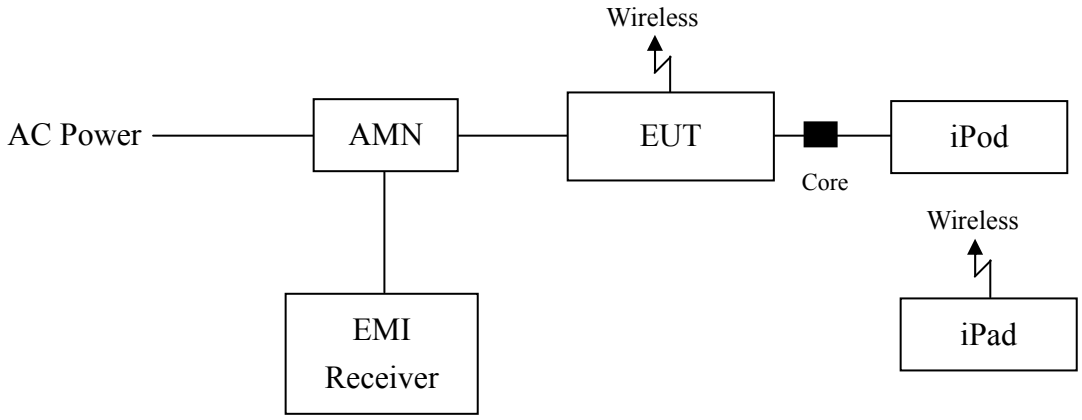
Test Items		Test Mode	Test Voltage
Emission	Conducted Emission	RPM Function Work	264Vac, 50Hz
	Discontinuous disturbance voltage		264Vac, 50Hz
	Radiated Emission		264Vac, 50Hz
	Flicker		230Vac, 50Hz
Immunity			230Vac, 50Hz

3.5 Peripherals equipment

Peripherals	Brand	Model No.	Serial No.	Description of Data Cable
iPod	Apple	A1236	6U8089CYYOP	N/A
iPad 16G	Apple	A1395	DYWJK2JPDFHW	Shielded Cable with mini phone jack connector 2 meter with core × 1

4. Conducted Emission Test

4.1 Test Procedure



The mains terminal disturbance voltage was measured with the equipment under test (EUT) in a screened room. The EUT was connected to an artificial mains network (AMN) and was placed on a non-metallic table 0.8 meter above a metallic grounded floor.
The AMN was on the ground plane. The EUT was placed 0.4 meter from the reference ground plane (RGP) wall and 0.8 meter from the AMN.

Amplitude measurements were performed with a quasi-peak detector and if required, with an average detector.

4.2 Test Equipment

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
EMI Test Receiver	Rohde&schwarz	ESCS30	835418/012	2013/06/21	2014/06/20
Two-Line V-Network	Rohde & Schwarz	ENV216	101159	2013/06/14	2014/06/13
Two-Line -V-Network (AMN)	Rohde&schwarz	ESH3-Z5	835239/023	2012/11/07	2013/11/06
CON-2 Cable	SUHNER	BNC / RG-58	2146637	2013/05/18	2014/05/17
Shield Room	N/A	N/A	N/A	N/A	N/A

Note: The above equipments are within the valid calibration period.

4.3 Conducted Emission Limit

Household appliances and equipment causing similar disturbances and regulating controls incorporating semiconductor devices

Frequency range	At mains terminals		At load terminals and additional terminals	
1	2	3	4	5
(MHz)	dB(μ V) Quasi-peak	dB(μ V) Average*	dB(μ V) Quasi-peak	dB(μ V) Average*
0.15 to 0.50	Decreasing linearly with the logarithm of the frequency from:		80	70
	66 to 56	59 to 46		
0.50 to 5.0	56	46	74	64
5.0 to 30.0	60	50	74	64
* If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.				

Mains terminals of tools

1	6	7	8	9	10	11
Frequency range	**Rated motor power not exceeding 700W**		**Rated motor power above 700W and not exceeding 1000W**		**Rated motor power above 1000W**	
(MHz)	dB(μ V) Quasi-peak	dB(μ V) Average*	dB(μ V) Quasi-peak	dB(μ V) Average*	dB(μ V) Quasi-peak	dB(μ V) Average*
0.15 to 0.35	Decreasing inearly with the logarithm of the frequency from:					
	66 to 59	59 to 49	70 to 63	63 to 53	76 to 69	69 to 59
0.35 to 5.0	59	49	63	53	69	59
5.0 to 30.0	64	54	68	58	74	64
* If the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector, the equipment under test shall be deemed to meet both limits and the measurement using the receiver with an average detector need not be carried out.						

Note: The limits for the measurement with the average detector are tentative and may be modified after a period of experience.

4.4 Uncertainty of Conducted Emission

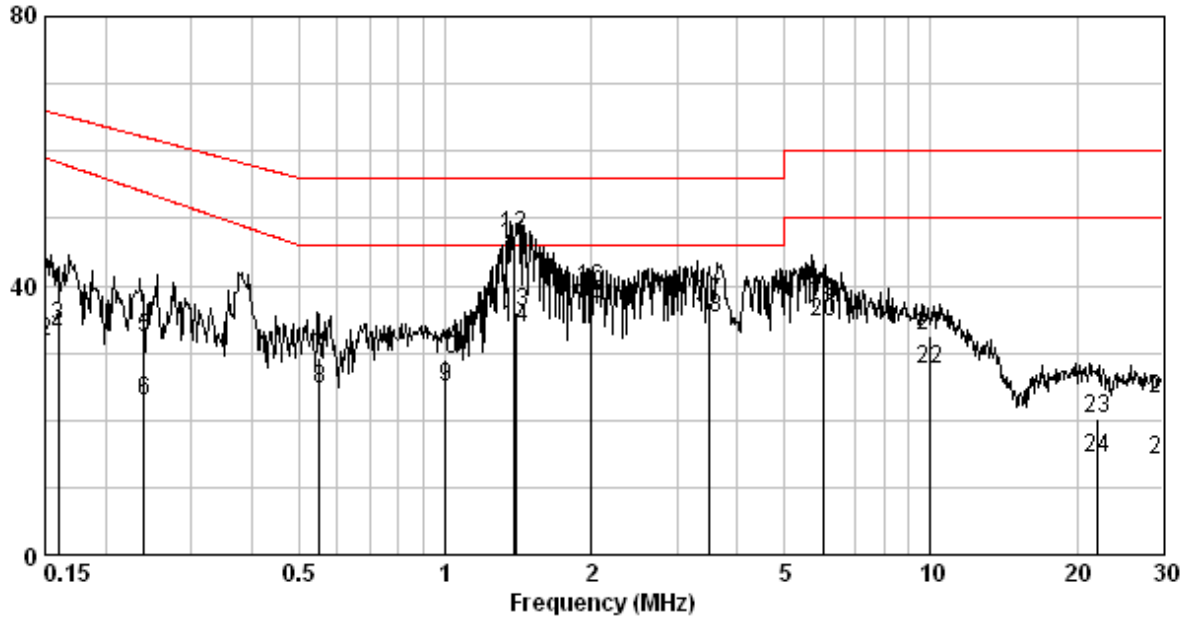
Expanded uncertainty (k=2) of conducted emission measurement is 2.08 dB.

4.5 Conducted Emission Data

Phase:	Live Line			
Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	48	%	Test Date:	Oct. 03, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Frequency (MHz)	Corr. Factor (dB)	Level Qp (dBuV)	Limit Qp (dBuV)	Level Av (dBuV)	Limit Av (dBuV)	Margin (dB) Qp	Margin (dB) Av
0.150	0.19	40.13	66.00	31.68	59.00	-25.87	-27.32
0.160	0.19	34.10	65.46	32.59	58.30	-31.37	-25.72
0.240	0.20	32.13	62.10	22.76	53.93	-29.97	-31.17
0.550	0.25	29.35	56.00	24.58	46.00	-26.65	-21.42
1.000	0.31	29.00	56.00	24.94	46.00	-27.00	-21.06
1.389	0.36	47.39	56.00	45.89	46.00	-8.61	-0.11
1.400	0.36	36.00	56.00	33.82	46.00	-20.00	-12.18
2.000	0.41	37.30	56.00	39.58	46.00	-18.70	-6.42
3.500	0.56	37.38	56.00	35.16	46.00	-18.62	-10.84
6.000	0.80	37.44	60.00	34.58	50.00	-22.56	-15.42
10.000	1.07	32.58	60.00	27.58	50.00	-27.42	-22.42
22.000	2.01	20.25	60.00	14.22	50.00	-39.75	-35.78
30.000	2.25	23.25	60.00	14.18	50.00	-36.75	-35.82

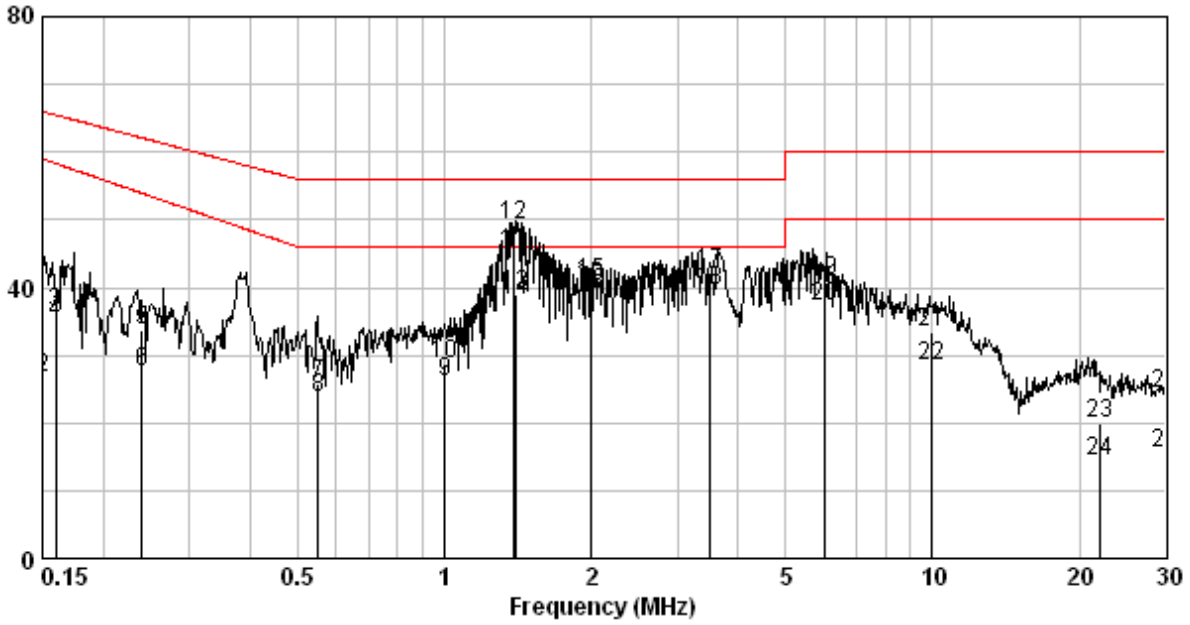
Remark:
1. Corr. Factor (dB)= AMN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Level (dBuV) – Limit (dBuV)



Phase:	Neutral Line			
Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	48	%	Test Date:	Oct. 03, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Frequency (MHz)	Corr. Factor (dB)	Level Qp (dBuV)	Limit Qp (dBuV)	Level Av (dBuV)	Limit Av (dBuV)	Margin (dB) Qp	Margin (dB) Av
0.150	0.20	38.43	66.00	26.61	59.00	-27.57	-32.39
0.160	0.20	36.27	65.46	34.96	58.30	-29.20	-23.35
0.240	0.21	33.84	62.10	27.42	53.93	-28.26	-26.51
0.550	0.26	25.85	56.00	23.61	46.00	-30.15	-22.39
1.000	0.32	28.85	56.00	25.99	46.00	-27.15	-20.01
1.391	0.36	49.14	56.00	45.24	46.00	-6.86	-0.76
1.400	0.36	39.08	56.00	38.13	46.00	-16.92	-7.87
2.000	0.40	40.76	56.00	40.09	46.00	-15.24	-5.91
3.500	0.55	42.09	56.00	39.65	46.00	-13.91	-6.35
6.000	0.76	41.03	60.00	37.15	50.00	-18.97	-12.85
10.000	0.98	33.27	60.00	28.33	50.00	-26.73	-21.67
22.000	1.72	20.06	60.00	14.42	50.00	-39.94	-35.58
30.000	1.89	24.36	60.00	15.48	50.00	-35.64	-34.52

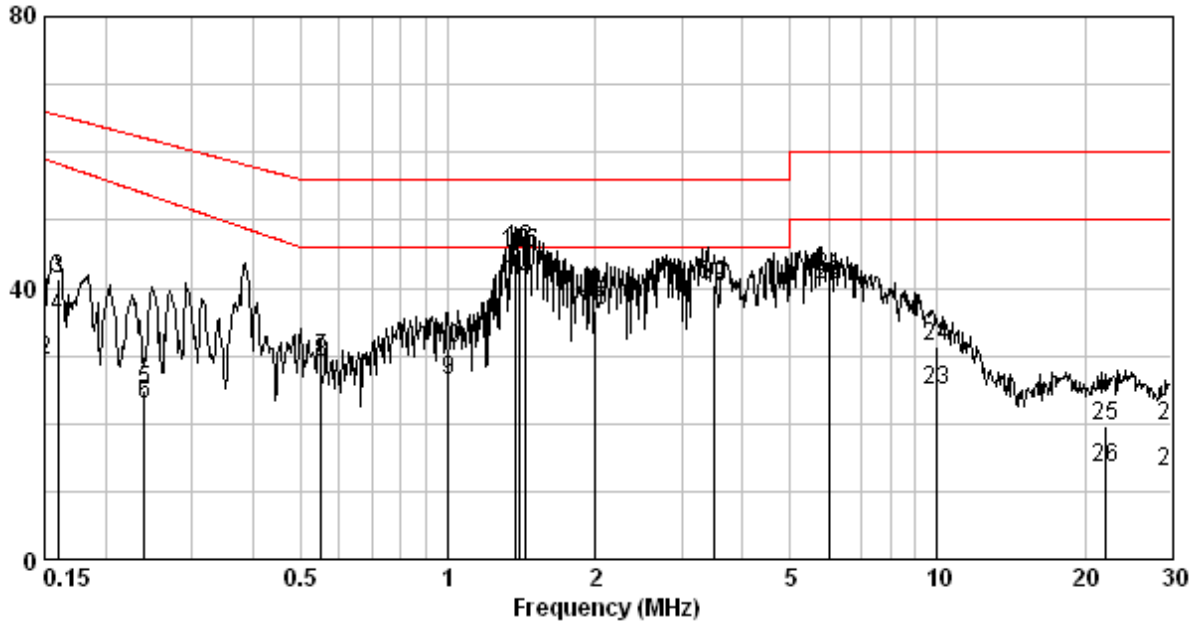
Remark:
1. Corr. Factor (dB)= AMN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Level (dBuV) – Limit (dBuV)



Phase:	Live Line			
Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	48	%	Test Date:	Sep. 26, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Frequency (MHz)	Corr. Factor (dB)	Level Qp (dBuV)	Limit Qp (dBuV)	Level Av (dBuV)	Limit Av (dBuV)	Margin (dB) Qp	Margin (dB) Av
0.150	0.19	33.30	66.00	29.22	59.00	-32.70	-29.78
0.160	0.19	41.42	65.46	35.82	58.30	-24.05	-22.49
0.240	0.20	24.87	62.10	22.85	53.93	-37.23	-31.08
0.550	0.25	29.60	56.00	29.12	46.00	-26.40	-16.88
1.000	0.31	31.14	56.00	26.40	46.00	-24.86	-19.60
1.374	0.36	45.03	56.00	45.08	46.00	-10.97	-0.92
1.400	0.36	45.58	56.00	41.12	46.00	-10.42	-4.88
1.441	0.36	44.98	56.00	45.03	46.00	-11.02	-0.97
2.000	0.41	36.64	56.00	36.08	46.00	-19.36	-9.92
3.500	0.56	40.19	56.00	40.46	46.00	-15.81	-5.54
6.000	0.80	41.71	60.00	40.33	50.00	-18.29	-9.67
10.000	1.07	31.30	60.00	24.93	50.00	-28.70	-25.07
22.000	2.01	19.74	60.00	13.34	50.00	-40.26	-36.66
30.000	2.25	19.58	60.00	12.94	50.00	-40.42	-37.06

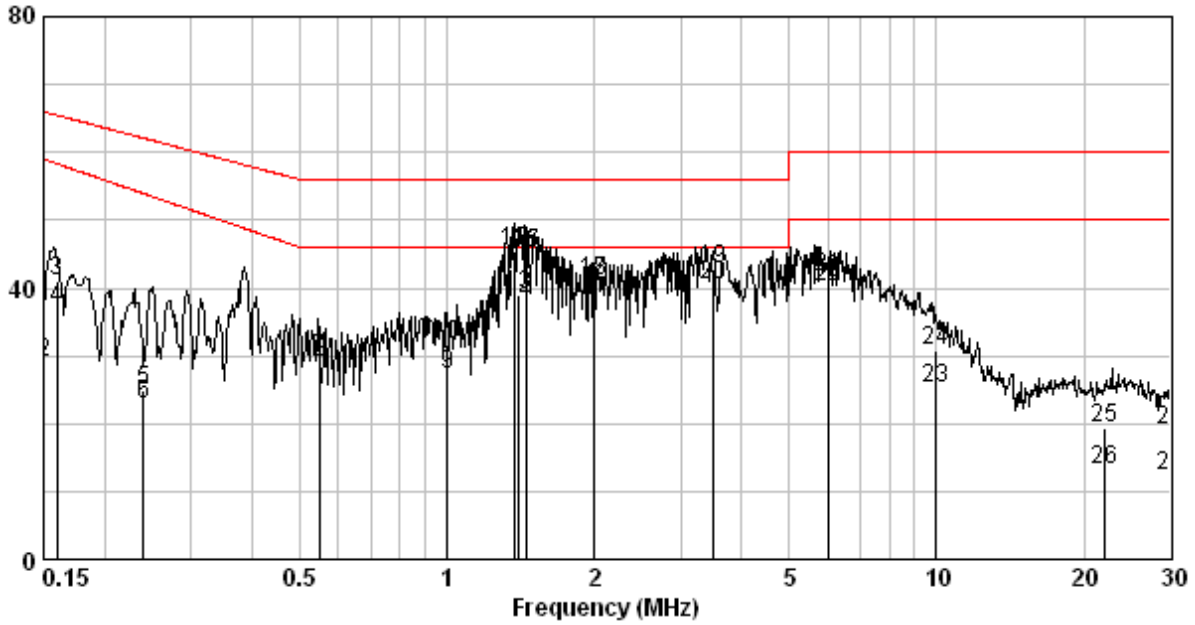
Remark:
1. Corr. Factor (dB)= AMN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Level (dBuV) – Limit (dBuV)



Phase:	Neutral Line			
Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	48	%	Test Date:	Sep. 26, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

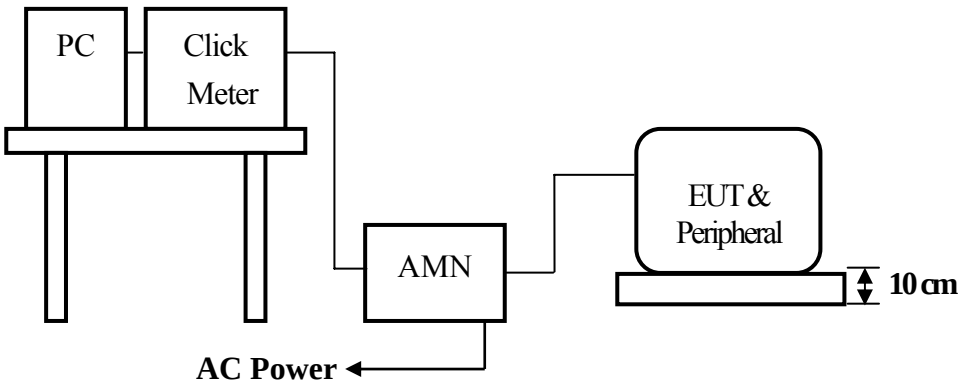
Frequency (MHz)	Corr. Factor (dB)	Level Qp (dBuV)	Limit Qp (dBuV)	Level Av (dBuV)	Limit Av (dBuV)	Margin (dB) Qp	Margin (dB) Av
0.150	0.20	33.27	66.00	29.07	59.00	-32.73	-29.93
0.160	0.20	41.00	65.46	36.91	58.30	-24.47	-21.40
0.240	0.21	24.90	62.10	22.90	53.93	-37.20	-31.03
0.550	0.26	29.61	56.00	29.13	46.00	-26.39	-16.87
1.000	0.32	31.77	56.00	27.29	46.00	-24.23	-18.71
1.374	0.36	45.37	56.00	45.49	46.00	-10.63	-0.51
1.400	0.36	38.96	56.00	37.84	46.00	-17.04	-8.16
1.454	0.36	45.05	56.00	45.16	46.00	-10.95	-0.84
2.000	0.40	41.12	56.00	41.04	46.00	-14.88	-4.96
3.500	0.55	42.85	56.00	40.41	46.00	-13.15	-5.59
6.000	0.76	41.71	60.00	40.24	50.00	-18.29	-9.76
10.000	0.98	30.75	60.00	25.21	50.00	-29.25	-24.79
22.000	1.72	19.47	60.00	13.13	50.00	-40.53	-36.87
30.000	1.89	19.00	60.00	12.38	50.00	-41.00	-37.62

Remark:
1. Corr. Factor (dB)= AMN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Level (dBuV) – Limit (dBuV)



5. Discontinuous Disturbance Voltage

5.1 Test Procedure



The mains terminal disturbance voltage was measured with the equipment under test (EUT) in a screened room. The EUT was connected to an artificial mains network (AMN) and was placed on a non-metallic table 0.1 meter above a metallic grounded floor. The EUT was placed 0.4 meter from the reference ground plane (RGP) wall and 0.8 meter from the AMN.

The click meter designed according to the standard and controlled by a computer. It was connected to the AMN. The disturbance of the frequency 150 kHz, 500 kHz, 1.4 MHz and 30 MHz, and the click numbers which over the limit were counted and analyzed by the click meter.

5.2 Test Equipment

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
AMN	AFJ	LS16	160199040039	2013/06/12	2014/06/11
Click Meter	AFJ	CL55C	55040042080	2013/06/08	2014/06/07
Screened room	Intertek	N/C	N/A	N/A	N/A

Note: The above equipments are within the valid calibration period.

5.3 Test Results

Phase:	LINE/NEUTRAL			
Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	50	%	Test Date:	Oct. 03, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Frequency (MHz)		0.15	0.50	1.40	30.00
1'st Run Permitted limit for continuous interference (dBμV)		66	56	56	60
L	Run Short Click	0	0	0	0
L	Run Long Click	0	0	0	0
L	Run Fast Long Click	0	0	0	0
L	Run Total Click	0	0	0	0
L	Run Test Time (Min)	120	120	120	120
L	Run Click rate (N)	0	0	0	0
L	Run Test Result	PASS	PASS	PASS	PASS
N	Run Short Click	0	0	0	0
N	Run Long Click	0	0	0	0
N	Run Fast Long Click	0	0	0	0
N	Run Total Click	0	0	0	0
N	Run Test Time (Min)	120	120	120	120
N	Run Click rate (N)	0	0	0	0
N	Run Test Result	PASS	PASS	PASS	PASS
Total Run Complies with the limit		YES	YES	YES	YES

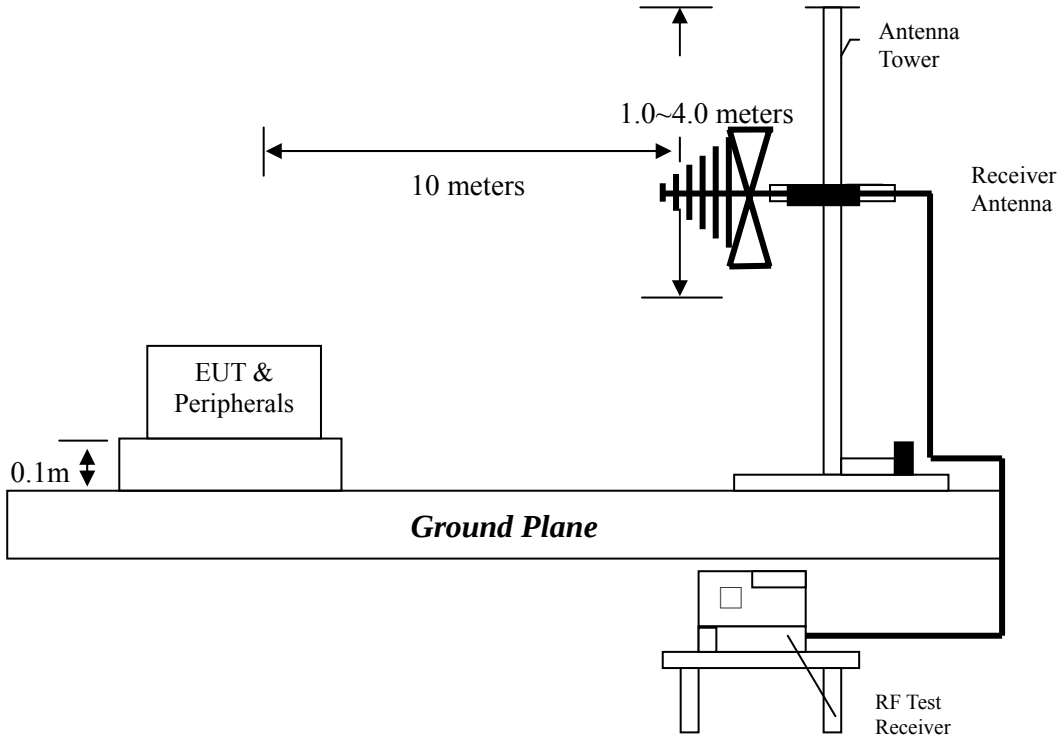
Phase:	LINE/NEUTRAL			
Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	50	%	Test Date:	Sep. 26, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Frequency (MHz)		0.15	0.50	1.40	30.00
1'st Run Permitted limit for continuous interference (dBμV)		66	56	56	60
L	Run Short Click	0	0	0	0
L	Run Long Click	0	0	0	0
L	Run Fast Long Click	0	0	0	0
L	Run Total Click	0	0	0	0
L	Run Test Time (Min)	120	120	120	120
L	Run Click rate (N)	0	0	0	0
L	Run Test Result	PASS	PASS	PASS	PASS
N	Run Short Click	0	0	0	0
N	Run Long Click	0	0	0	0
N	Run Fast Long Click	0	0	0	0
N	Run Total Click	0	0	0	0
N	Run Test Time (Min)	120	120	120	120
N	Run Click rate (N)	0	0	0	0
N	Run Test Result	PASS	PASS	PASS	PASS
Total Run Complies with the limit		YES	YES	YES	YES

6. Radiated Emission Test

6.1.1 Test Procedure from 30 MHz to 1000 MHz

The figure below shows the test setup, which is utilized to make these measurements.



Radiated testing was performed at a 10 meters open area test site. The equipment under test was placed on a turntable top 0.1 meter above ground. The table was 360 degrees to determine the position of the highest radiation. EUT is set 10 meters from the EMI receiving antenna, which is mounted on a variable height mast. The antenna height is varied between one meter and four meters above ground to find the maximum value of the field strength. Both horizontal polarization and vertical polarization of the antenna was set to conduct the measurement.
The bandwidth was set on the EMI meter 120 kHz.
The levels are quasi peak value readings. The frequency spectrum from 30 MHz to 1000 MHz was investigated.

6.1.2 Test Equipment

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
EMI Test Receiver	Rohde&schwarz	ESCS30	825788/015	2013/06/05	2014/06/05
Antenna (Bi Log Type)	Schaffner	CBL6112B	2836	2012/05/22	2014/05/22
OATS_1	Intertek	N/A	N/A	2013/05/18	2014/05/17

Note: The above equipments are within the valid calibration period.

6.1.3 Radiated Emission Limit

Frequency (MHz)	Distance(m)	dB(μV/m)
30~230	10	30
230~1000	10	37

Note:
1. The tighter limit shall apply at the edge between two frequency bands.
2. Distance refers to the distance in meters between the EUT to antenna.

6.1.4 Uncertainty of Radiated Emission

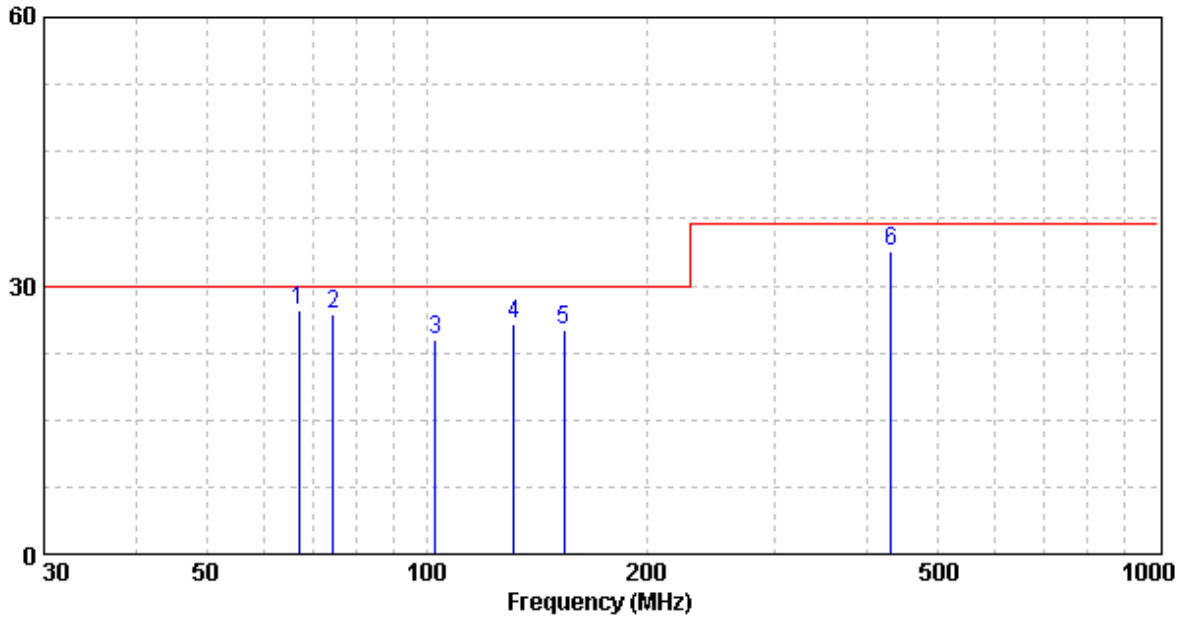
Vertical: Expanded uncertainty (k=2) of radiated emission measurement is 4.13 dB.
Horizontal: Expanded uncertainty (k=2) of radiated emission measurement is 3.85 dB.

6.1.5 Radiated Emission Test Data from 30 MHz to 1000 MHz

Polarity:	Vertical			
Temperature:	34	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	58	%	Test Date:	Oct. 21, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Freq	Pol/Phase	Factor	Read Level	Level	Limit Line	Over Limit	Remark
MHz		dB	dBuV	dBuV/m	dBuV/m	dB	
66.86	HORIZONTAL	7.56	19.80	27.36	30.00	-2.64	QP
74.62	HORIZONTAL	7.96	18.90	26.86	30.00	-3.14	QP
102.75	HORIZONTAL	12.76	11.30	24.06	30.00	-5.94	QP
131.85	HORIZONTAL	13.42	12.30	25.72	30.00	-4.28	QP
154.16	HORIZONTAL	12.46	12.60	25.06	30.00	-4.94	QP
432.55	HORIZONTAL	20.51	13.40	33.91	37.00	-3.09	QP

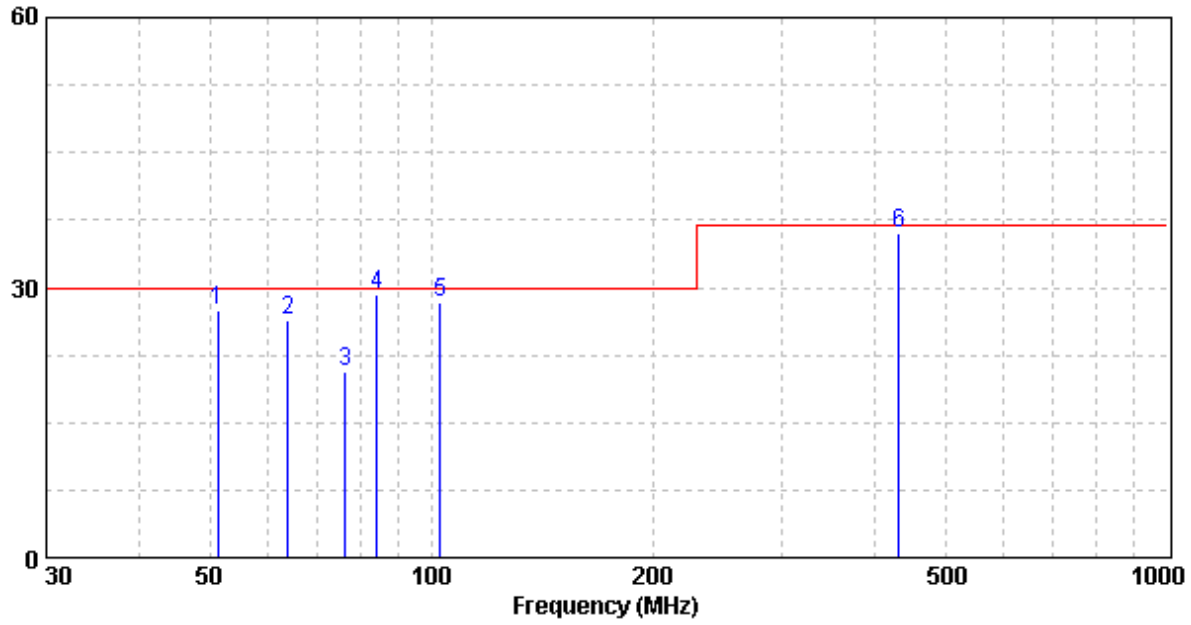
Remark:
1. Level (dBμV/m) = Factor (dB/m) + Read Level (dBμV)
2. Factor = Antenna Factor (dB/m) + Cable Loss (dB)
3. Over Limit (Margin) (dB) = Level (dBμV/m) – Limit Line (dBμV/m)



Polarity:	Horizontal			
Temperature:	34	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	58	%	Test Date:	Oct. 21, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Freq	Pol/Phase	Factor	Read Level	Level	Limit Line	Over Limit	Remark
MHz		dB	dBuV	dBuV/m	dBuV/m	dB	
51.34	VERTICAL	9.17	18.30	27.47	30.00	-2.53	QP
63.95	VERTICAL	7.63	18.80	26.43	30.00	-3.58	QP
76.56	VERTICAL	8.14	12.50	20.64	30.00	-9.36	QP
84.32	VERTICAL	9.31	19.90	29.21	30.00	-0.79	QP
102.75	VERTICAL	12.76	15.50	28.26	30.00	-1.74	QP
431.58	VERTICAL	20.47	15.50	35.97	37.00	-1.03	QP

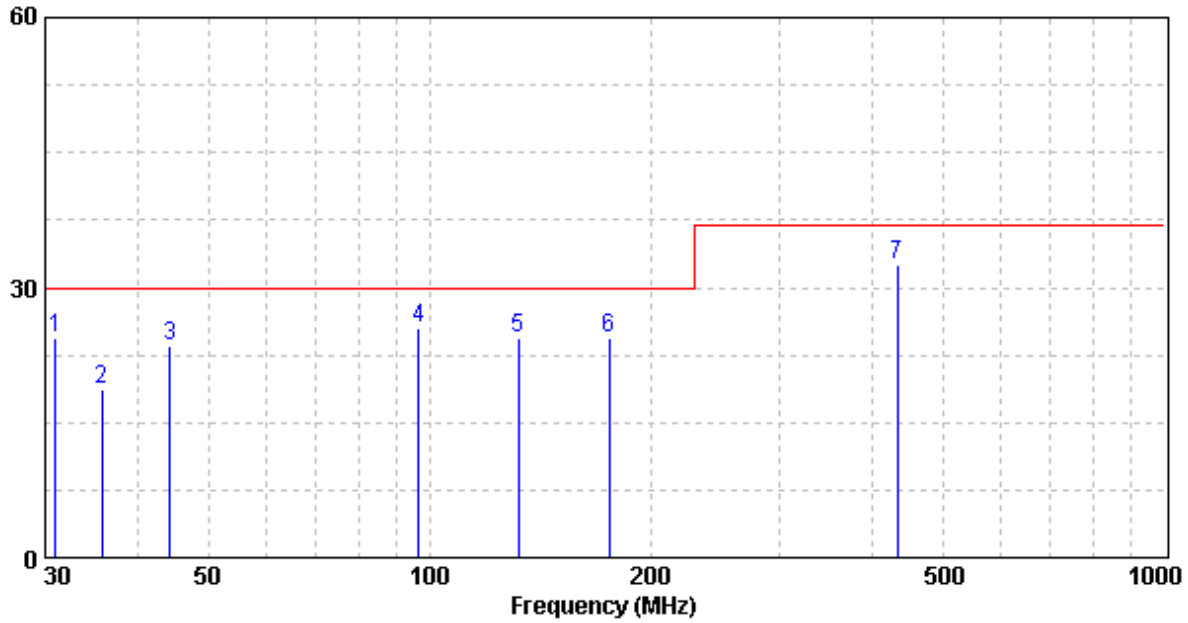
Remark:
1. Level (dBμV/m) = Factor (dB/m) + Read Level (dBμV)
2. Factor = Antenna Factor (dB/m) + Cable Loss (dB)
3. Over Limit (Margin) (dB) = Level (dBμV/m) – Limit Line (dBμV/m)



Polarity:	Vertical			
Temperature:	34	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	58	%	Test Date:	Sep. 17, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Freq	Pol/Phase	Factor	Read Level	Level	Limit Line	Over Limit	Remark
MHz		dB	dBuV	dBuV/m	dBuV/m	dB	
31.00	VERTICAL	19.14	5.22	24.36	30.00	-5.64	QP
35.87	VERTICAL	16.56	2.15	18.71	30.00	-11.29	QP
44.33	VERTICAL	11.57	11.86	23.43	30.00	-6.57	QP
96.60	VERTICAL	11.81	13.69	25.50	30.00	-4.50	QP
132.00	VERTICAL	13.43	11.07	24.50	30.00	-5.50	QP
175.50	VERTICAL	11.67	12.83	24.50	30.00	-5.50	QP
433.30	VERTICAL	20.53	12.07	32.60	37.00	-4.40	QP

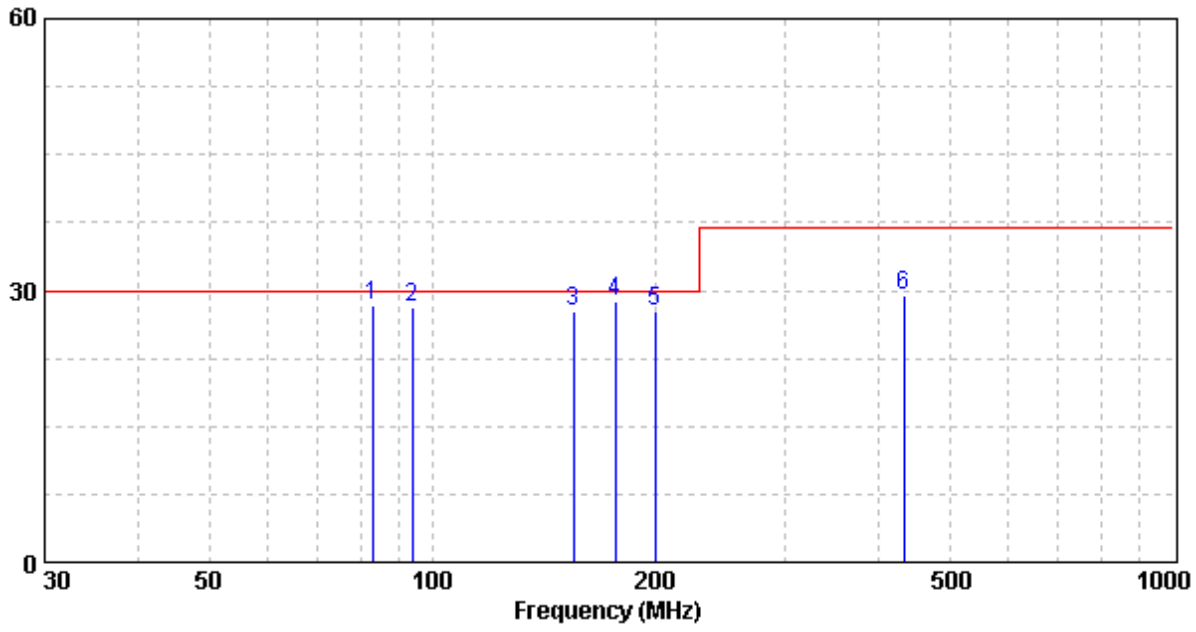
Remark:
1. Level (dBμV/m) = Factor (dB/m) + Read Level (dBμV)
2. Factor = Antenna Factor (dB/m) + Cable Loss (dB)
3. Over Limit (Margin) (dB) = Level (dBμV/m) – Limit Line (dBμV/m)



Polarity:	Horizontal			
Temperature:	34	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	58	%	Test Date:	Sep. 17, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Freq	Pol/Phase	Factor	Read Level	Level	Limit Line	Over Limit	Remark
MHz		dB	dBuV	dBuV/m	dBuV/m	dB	
83.09	HORIZONTAL	9.11	19.18	28.29	30.00	-1.71	QP
94.09	HORIZONTAL	11.25	16.93	28.18	30.00	-1.82	QP
155.00	HORIZONTAL	12.41	15.39	27.80	30.00	-2.20	QP
176.97	HORIZONTAL	11.58	17.17	28.75	30.00	-1.25	QP
199.99	HORIZONTAL	11.63	16.11	27.74	30.00	-2.26	QP
433.33	HORIZONTAL	20.54	8.86	29.40	37.00	-7.60	QP

Remark:
1. Level (dBμV/m) = Factor (dB/m) + Read Level (dBμV)
2. Factor = Antenna Factor (dB/m) + Cable Loss (dB)
3. Over Limit (Margin) (dB) = Level (dBμV/m) – Limit Line (dBμV/m)



7. Harmonics Test

According to the EN61000-3-2 requirement for active input power of all applications, there are no limits apply for equipment with an active input power up to and including 75W. For class A equipment, if the active input power is lower than 75W, the equipment shall not be test.

8. Voltage Fluctuations-Flicker Test

8.1 Test Procedure

The voltage changes at the supply terminals were measured using the voltage method.

The test voltage was supplied from an AC source which meets the requirements according to the standard. The voltage source has virtually zero internal impedance and is connected

(1 phase)
Z = 0.4 + j 0.25Ω (total impedance)

(3 phases)
Impedance in line conductor: Za = 0.25 + j 0.25 Ω
Impedance in neutral conductor: Zn = 0.15 +j 0.10 Ω

The observation period, T_P, for the assessment of flicker values by flicker measurement, flicker simulation, or analytical method shall be:

- for P_{st}, T_P = 10 min
- for P_{lt}, T_P = 2 h

The observation period shall include that part of the whole operation cycle in which the equipment under test produces the most unfavourable sequence of voltage changes.

24 measurement have been tasted and calculated the average from 22 records, exclude highest and lowest.

8.2 Test Equipment

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
EMC Emission Tester	EMC Partner	HARMONICS-1000	74	2013/03/19	2014/03/18

Note: The above equipments are within the valid calibration period.

8.3 Uncertainty of Flicker

Expanded uncertainty (*k*=2) of flicker measurement is 0.86.

8.4 Test result

Temperature:	25	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	55	%	Test Date:	Oct. 01, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

	EUT DATA	LIMIT	RESULT	TEST ENABLED
d_{max} %	**0.150**	**4.00**	**PASS**	☒

Temperature:	25	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	55	%	Test Date:	Sep. 26, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

	EUT DATA	LIMIT	RESULT	TEST ENABLED
d_{max} %	**0.150**	**4.00**	**PASS**	☒

9. Electrostatic Discharge Immunity Test

9.1 Purpose

The object of the test is to evaluate the ESD immunity performance of EUT.

9.2 Test Set-Up

A horizontal coupling plane (HCP) was placed on a non-metallic table 0.1 meter above a reference ground plane (RGP) and connected to it with a cable with two 470 kΩ resistors. The EUT was placed on an insulation sheet on the HCP and was operated according to the specified operating mode.

A vertical coupling plane (VCP) was connected to the RGP with a cable with two 470 kΩ resistors.

9.3 Test Specification

Test level:	Air discharge	-------	+/- 8 kV
	Contact discharge	-------	+/- 4 kV

Single discharge at 1 second interval positive discharge and negative discharge

The selected test points are listed in this table, the numbers refer to the figures attached.

9.4 Test Equipment

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
Electrostatic Discharge System	NoiseKen	ESS-2002	ESS0291088	2013/10/07	2014/10/06

Note: The above equipments are within the valid calibration period.

9.5 Test Result

Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	51	%	Test Date:	Oct. 15, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Point of Discharge	Applied Voltage (kV)	Number of Discharge	Result	Remark
Contact Test Point	±4	20	PASS	Criterion B
Air Test Point	±8	20	PASS	Criterion B
VCP (4 sides)	±4	20	PASS	Criterion A

Description of Discharge Point

Contact Discharge 20 Test points		Air Discharge	
☒	Metallic Screws	☐	Plastic Screws
☒	Metallic Case	☒	Plastic Case (gap)
☒	Metallic Connect ports	☐	Plastic Connect ports
☒	Metallic Junctions	☐	Plastic Junctions
☐	Others:	☐	LED indicator
		☒	Panel Board
		☐	Others:

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☒ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	51	%	Test Date:	Oct. 02, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Point of Discharge	Applied Voltage (kV)	Number of Discharge	Result	Remark
Contact Test Point	±4	20	PASS	Criterion B
Air Test Point	±8	20	PASS	Criterion B
VCP (4 sides)	±4	20	PASS	Criterion A

Description of Discharge Point

Contact Discharge 20 Test points		Air Discharge	
☒	Metallic Screws	☐	Plastic Screws
☒	Metallic Case	☒	Plastic Case (gap)
☒	Metallic Connect ports	☐	Plastic Connect ports
☒	Metallic Junctions	☐	Plastic Junctions
☐	Others:	☐	LED indicator
		☒	Panel Board
		☐	Others:

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☒ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

10. Radiated, Radio-Frequency, Electromagnetic Field Immunity Test

10.1 Purpose

This test method subjects the EUT to a power source of disturbance comprising electric and magnetic field, simulating those coming from intentional RF transmitters.

10.2 Test Set-Up

The EUT was placed on a non-metallic table 0.1 meter above the reference ground plane (RGP) and was operated according to its specified operating mode.

Ferrite tiles/absorbers were placed on the RGP between the EUT and the antenna to reduce the reflections from the RGP. The EUT and its cables were exposed for the electromagnetic field for 1.5meter vertically and 1.5m horizontally.

The distance between antenna and EUT is 3 meter.

10.3 Test Specification

Test level	Test field strength V/m	Modulation
1	1	1 kHz 80 % AM
2	3	1 kHz 80 % AM
3	10	1 kHz 80 % AM
X	Special	1 kHz 80 % AM

The frequency steps : 1 % , Log sweep
Dwell time : 3.0 sec
Frequency range : 80 MHz~1 GHz
Test ports : Enclosure port
Test voltage : 3 V/m

10.4 Test Equipment

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
733 Compact Full Anechoic Chamber	Comtest(RS)	9708093	N/A	2013/09/01	2014/08/31
Singal Generator	Rohde & Schwarz	SMB100A	102385	2013/05/02	2014/05/01
Field Meter	Narda	NBM-520	C-0064	2013/07/10	2014/07/09
Field Probe	Narda	EF1891	A-0347	2013/07/10	2014/07/09

Note: The above equipments are within the valid calibration period.

10.5 Generation of the Electromagnetic Field

The electromagnetic field is generated from a computer controlled signal generator. The output power is amplified and then radiated from broadband log periodic antennas. For each sweep a pre-recorded empty chamber calibration file is used to establish the required field strength. When using these files the field strength inside an area of 1.5/1.0 meter x 1.5 meter is in accordance with the standard.

10.6 Test Results

Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	51	%	Test Date:	Oct. 14, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Exposed Side: ☒ Front ☒ Left ☒ Rear ☒ Right

Frequency (MHz)	Antenna Polarization	Result	Remark
80 MHz to 1 GHz	Vertical	PASS	Criterion A
80 MHz to 1 GHz	Horizontal	PASS	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	51	%	Test Date:	Oct. 02, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Exposed Side: ☒ Front ☒ Left ☒ Rear ☒ Right

Frequency (MHz)	Antenna Polarization	Result	Remark
80 MHz to 1 GHz	Vertical	PASS	Criterion A
80 MHz to 1 GHz	Horizontal	PASS	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

11. Electrical Fast Transient/Burst Immunity Test

11.1 Purpose

The purpose of this test is to evaluate the EUT performance during the repetitive transient bursts applied to power port and ports for I/O ports.

11.2 Test Set-Up

For power port testing, the EUT was placed on a non-metallic table 0.1±0.01 meter above a reference ground plane (RGP) and was put into operation according to the specified operating mode.

11.3 Test Specification

Open-circuit output test voltage (±10%) and repetition rate of the impulses (±20%)				
Level	On power supply port, PE		On I/O (Input/Output) signal, Data and control ports	
	Voltage peak (kV)	Repetition rate (kHz)	Voltage peak (kV)	Repetition rate (kHz)
1	0.5	5 or 100	0.25	5 or 100
2	1	5 or 100	0.5	5 or 100
3	2	5 or 100	1	5 or 100
4	4	5 or 100	2	5 or 100
X(1)	Special	Special	Special	Special
NOTE 1 Use of 5 kHz repetition rates is traditional; however, 100 kHz is closer to reality. Product committees should determine which frequencies are relevant for specific products or product types. NOTE 2 With some products, there may be no clear distinction between power ports and I/O ports, in which case it is up to product committees to make this determination for test purposes.				
(1) "x" is an open level. The level has to be specified in the dedicated equipment specification				

11.4 Test Equipment

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
EMC Test System	Teseq	NSG 3060	1366	2012/11/02	2013/11/01
CDN 3061	Teseq	CDN 3061	1342	2012/11/02	2013/11/01
CDN 3425	Teseq	CDN 3425	1682	N/A	N/A

Note: The above equipments are within the valid calibration period.

11.5 Test Results

Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	51	%	Test Date:	Oct. 04, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Level	Polarity	Power supply line and Protective earth terminal	Remark
1 kV	+	PASS	Criterion A
1 kV	-	PASS	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	51	%	Test Date:	Oct. 02, 2013
Atmospheric Pressure:	1008	hPa	Remark:	N/A

Level	Polarity	Power supply line and Protective earth terminal	Remark
1 kV	+	PASS	Criterion A
1 kV	-	PASS	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

12. Surge Immunity Test

12.1 Purpose

The object of this test is to establish a common reference to evaluate the performance of EUT when subjected to high-energy disturbances on the power and interconnection lines.

12.2 Test Set-Up

The EUT was placed on a non-metallic support 0.1 meter above a reference ground plane and was put into operation according to the specified operating mode.

12.3 Test Specification

For power supply line

Level	Open circuit test voltage kV +/- 10%	Remark
1	0.5	-
2	1.0	L to N
3	2.0	L to Gnd N to Gnd
4	4.0	-
X	Special	-
Note: "X" is an open class. This level can be specified in the product specification		

Surge wave form: 1.2 x 50 μs, Repetition rate: 1 /min (max)

12.4 Test Equipment.

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
Advanced EMC Immunity Test System	Keytek	EMC Pro	9807103	2012/11/30	2013/11/29
Signal Line Coupling Decoupling Network	EMC- Partner AG	CDN-UTP8	033	N/A	N/A

Note: The above equipments are within the valid calibration period.

12.5 Test Results

Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	51	%	Test Date:	Oct. 04, 2013
Atmospheric	1008	hPa	Remark:	N/A

Test 5 times for each voltage

Phase			0°	90°	180°	270°	Remark
Volt	Mode	Polarity					
1 kV	L to N	+	PASS	PASS	PASS	PASS	Criterion A
		-	PASS	PASS	PASS	PASS	Criterion A
2 kV	L to Gnd	+	PASS	PASS	PASS	PASS	Criterion A
		-	PASS	PASS	PASS	PASS	Criterion A
	N to Gnd	+	PASS	PASS	PASS	PASS	Criterion A
		-	PASS	PASS	PASS	PASS	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	51	%	Test Date:	Oct. 02, 2013
Atmospheric	1008	hPa	Remark:	N/A

Test 5 times for each voltage

Phase			0°	90°	180°	270°	Remark
Volt	Mode	Polarity					
1 kV	L to N	+	PASS	PASS	PASS	PASS	Criterion A
		-	PASS	PASS	PASS	PASS	Criterion A
2 kV	L to Gnd	+	PASS	PASS	PASS	PASS	Criterion A
		-	PASS	PASS	PASS	PASS	Criterion A
	N to Gnd	+	PASS	PASS	PASS	PASS	Criterion A
		-	PASS	PASS	PASS	PASS	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

13. Immunity to Conducted Disturbances, Inducted by Radio-Frequency Fields

13.1 Purpose

The test method subjects the EUT to a power source of disturbance comprising electric and magnetic field, simulating those coming from intentional RF transmitters.
The measurement is for evaluating the performance of EUT when subjected to RF conducted disturbance.

13.2 Test Set-Up

The EUT was placed on a non-metallic support 0.1 meter above a reference ground plane (RGP) with the coupling/decoupling network (CDN) placed 0.3 meter from the EUT on the RGP.

13.3 Test Specification

Test level	Voltage (Vrms)	Modulation
1	1	1 kHz 80 % AM
2	3	1 kHz 80 % AM
3	10	1 kHz 80 % AM
X	Special	1 kHz 80 % AM

The frequency steps : 1%, Log sweep
Dwell time : 3 sec
Frequency range : 150 kHz to 230 MHz
Test ports : AC port
Test voltage : 3 Vrms

13.4 Test Equipment

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
RF-Synthesizer Amplifier	SCHAFFNER	NSG 2070	1119	2012/11/07	2013/11/06
RF Current-Injection Clamp	Luthi	EM101	35525	2012/11/26	2013/11/25
Mainsnetwork	COMTEST	4413-016	9818	2012/11/21	2013/11/20
Power Line Coupling Decoupling Network	Fischer	FCC-801-M2-16A	04017	2012/11/24	2013/11/23

Note: The above equipments are within the valid calibration period.

13.5 Generation and Calibration of the Disturbance Signal

The disturbance signal is generated from a computer controlled signal generator.
The output signal is amplified and injected to the CDN/injection clamp. The disturbance signal level was calibrated as specified in the standard. A power meter was connected to the EUT side of the CDN through a 150 -50Ω adapter. The auxiliary equipment (AE) side of the network was terminated with 150Ω to ground during the calibration. The generator settings obtained during the calibration procedure were later repeated in the tests.

13.6 Test Results

Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	51	%	Test Date:	Oct. 04, 2013
Atmospheric Pressure:	1015	hPa	Remark:	N/A

Frequency	Test Port	Result	Remark
0.15 MHz to 230 MHz	AC	PASS	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	51	%	Test Date:	Sep. 27, 2013
Atmospheric Pressure:	1015	hPa	Remark:	N/A

Frequency	Test Port	Result	Remark
0.15 MHz to 230 MHz	AC	PASS	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

14. Voltage Dips, Short Interruptions and Voltage Variations Immunity Test

14.1 Purpose

The object of this standard is to establish a common reference for evaluating the immunity of electrical and electronic equipment when subjected to voltage dips, short interruptions, and voltage variations.

14.2 Test Set-Up

The EUT was placed on a non-metallic support 0.1 meter above a reference ground plane and was put into operation according to the specified operating mode.

14.3 Test Specification

Voltage: 50 Hz

Test Level	Reduction '% of rated	Test Level % U_T	Duration	Tests	Recovery Time(Sec)
			Period		
1	100%	0%	0.5	3	10
2	30%	70%	25	3	10
3	60%	40%	10	3	10

Voltage: 60 Hz

Test Level	Reduction '% of rated	Test Level % U_T	Duration	Tests	Recovery Time(Sec)
			Period		
1	100%	0%	0.5	3	10
2	30%	70%	30	3	10
3	60%	40%	12	3	10

14.4 Test Equipment

Equipment	Brand	Model No.	Serial No.	Calibration Date	Next Calibration Date
Advanced EMC Immunity Test System	Keytek	EMC Pro	9807103	2012/11/30	2013/11/29

Note: The above equipments are within the valid calibration period.

14.5 Generation of the Disturbance Signal

The disturbance signal is generated using a programmable AC power source with pre-programmed test sequences for each test.

14.6 Test Result

Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	51	%	Test Date:	Oct. 04, 2013
Atmospheric Pressure:	1008	hPa	Remark:	230 Vac, 50 Hz

Test Level	Reduction % of rated	Test Level % U_T	Duration	Tests	Recovery Time(Sec)	Remark
			Period			
1	100%	0%	0.5	3	10	Criterion A
2	30%	70%	25	3	10	Criterion A
3	60%	40%	10	3	10	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

Temperature:	24	℃	Model No.:	RVTT-10411 Titanium TX2.0
Relative Humidity:	51	%	Test Date:	Oct. 04, 2013
Atmospheric Pressure:	1008	hPa	Remark:	230 Vac, 60 Hz

Test Level	Reduction '% of rated	Test Level % U_T	Duration / Period	Tests	Recovery Time(Sec)	Remark
1	100%	0%	0.5	3	10	Criterion A
2	30%	70%	30	3	10	Criterion A
3	60%	40%	12	3	10	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	51	%	Test Date:	Oct. 02, 2013
Atmospheric Pressure:	1008	hPa	Remark:	230 Vac, 50 Hz

Test Level	Reduction '% of rated	Test Level % U_T	Duration / Period	Tests	Recovery Time(Sec)	Remark
1	100%	0%	0.5	3	10	Criterion A
2	30%	70%	25	3	10	Criterion A
3	60%	40%	10	3	10	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

Temperature:	24	℃	Model No.:	RVTT-10711 Titanium TXF3.0
Relative Humidity:	51	%	Test Date:	Oct. 02, 2013
Atmospheric Pressure:	1008	hPa	Remark:	230 Vac, 60 Hz

Test Level	Reduction '% of rated	Test Level % U_T	Duration / Period	Tests	Recovery Time(Sec)	Remark
1	100%	0%	0.5	3	10	Criterion A
2	30%	70%	30	3	10	Criterion A
3	60%	40%	12	3	10	Criterion A

Criteria description:

Criterion A: ☒ Function is operated as intended during and after the test

☐ _____

Criterion B: ☐ Function is temporary degradation and operated as intended after the test.

☐ _____

Criterion C: ☐ Function is degradation or loss, requires operator intervention or system reset occurs.

☐ _____

Appendix A1: External photo of EUT(RVTT-10411 Titanium TX2.0)


Reebok


Reebok

Appendix A2: External photo of EUT(RVTT-10711 Titanium TXF3.0)


Reebok


VISTA-Lab-00018

Appendix A3: External photo of adapter